

REMARKS

Reconsideration and allowance of the subject application are respectfully solicited.

Claims 1-13 are pending in this application, with Claims 1 and 12 being independent. Claims 6-13 have been withdrawn from consideration. Claims 2 and 3 have been acknowledged as containing allowable subject matter.

Claims 1 and 12 have been amended herein to more distinctly recite and specifically claim the particular features of the present invention, by reciting that the thermoplastic resin particles and the substrate are fused. Support may be found in the specification at least at page 10, lines 8-12. It is submitted that no new matter has been added by the amendments herein.

Claims 1, 4 and 5 were rejected under 35 U.S.C. § 103(a) as allegedly obvious over JP 2-31673 in view of either Manser et al. (U.S. Patent No. 5,525,400) or Warther (U.S. Patent No. 5,495,981). Applicants respectfully disagree with this rejection as applied to the presently claimed invention.

Before addressing the merits of the rejection, Applicants believe it will be helpful to review some features

and advantages of the claimed invention. As recited in Claim 1, the invention relates to a recording medium provided with an ink-receiving layer on at least one side of a substrate. The ink-receiving layer is composed of a porous layer comprising pigment particles and mutually fused thermoplastic resin particles that have been fused with no particle structure left. The thermoplastic resin particles and the substrate are fused; Applicants note that this feature provides for excellent adhesion between the ink-receiving layer and the substrate.

Claim 12 recites a process for the preparation of a recording medium comprising the steps of applying to a substrate a coating liquid comprising pigment particles and thermoplastic resin particles, forming an ink-receiving layer by fusing and adhering the thermoplastic resin with heat under pressure, and fusing the thermoplastic resin particles and the substrate.

In Applicants' view, the present invention is neither anticipated nor rendered obvious by the cited references.

Regarding the primary reference, Applicants submit that JP 2-31673 does not disclose that the thermoplastic resin particles and the substrate are fused, but rather it teaches that the ink-receiving layer is dried at a temperature lower than the melt temperature of the thermoplastic polymer particles used therein. Applicants submit that although the outermost film layer is formed by fusing a thermoplastic material, the temperature for this fusion is not so high that the substrate would also be fused. Accordingly, Applicants conclude that in the production of the recording medium of JP 2-31673, nothing occurs that would fuse the thermoplastic resin particles and the substrate. JP 2-31673 therefore does not teach or suggest the feature of the claimed invention that the thermoplastic resin particles and the substrate are fused.

Manser et al. (which was cited as teaching the use of polyvinyl chloride as a supporting base) does not relate to an ink-jet recording medium, and thus, does not teach anything about the ink absorbency of the layer corresponding to an ink-receiving layer. The present invention improves the adhesion between the substrate and the ink-receiving layer by the fusion of thermoplastic resins, whereas Manser

et al. improves the adhesion between the components of the laminated structure by the use of light-curable adhesives. Therefore, even if it were proper to combine Manser et al. with the primary reference, it would not remedy the deficiencies of the primary reference as noted above.

Warther is also cited as teaching that the core material may be composed of resin materials such as polyvinyl chloride. Applicants note, however, that the printed sheet product disclosed therein is such that a section of the sheet onto which printing is conducted is peeled off. Accordingly, Warther does not teach or suggest that thermoplastic resin particles and a substrate are fused, and thus it does not remedy the deficiencies of the primary reference, either.

Applicants therefore conclude that the cited references do not teach or suggest the invention of Claims 1 and 12, either singly or in combination.

In Applicants' view, the present invention is patentably defined by independent Claims 1 and 12. The dependent claims are also submitted to be patentable for the same reasons as their respective independent claims and because they set forth additional features of the present invention that further distinguish them over the cited art.

Separate and individual consideration of each dependent claim is respectfully requested.

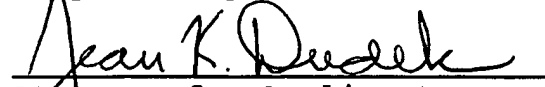
Withdrawal of the Section 103 rejection and rejoinder of withdrawn Claims 6-13 are respectfully requested.

This Amendment After Final Rejection is an earnest attempt to advance prosecution and reduce the number of issues, and is believed to place this application in condition for allowance. No new claims have been added. Furthermore, Applicants respectfully submit that a full appreciation of these amendments will not require undue time or effort given the Examiner's familiarity with this application. Accordingly, entry of this Amendment under 37 C.F.R. § 1.116 is respectfully requested.

Applicants submit that this application is in condition for allowance, and a Notice of Allowance is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



Attorney for Applicants
Jean K. Dudek
Registration No. 30,938

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200
JKD:ayr

APPENDIX
VERSION WITH MARKINGS TO SHOW CHANGES TO CLAIMS

1. (Twice Amended) A recording medium provided with an ink-receiving layer on at least one surface of a substrate, wherein said ink-receiving layer is composed of a porous layer comprising pigment particles and mutually fused thermoplastic resin particles that have been fused with no particle structure left, and wherein the thermoplastic resin particles and the substrate are fused.

12. (Amended) A process for the preparation of a recording medium comprising the steps of:

applying to a substrate a coating liquid comprising pigment particles and thermoplastic resin particles; [and]

forming an ink-receiving layer by fusing and adhering the thermoplastic resin with heat under pressure; and

fusing the thermoplastic resin particles and the substrate.